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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,543	03/18/2004	Roger G. Stewart	RS-001-US	5649

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EXAMINER
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BARTON, JEFFREY THOMAS

ART UNIT	PAPER NUMBER
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1795

MAIL DATE	DELIVERY MODE
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12/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/803,543	<b>Applicant(s)</b> STEWART, ROGER G.	
	<b>Examiner</b> Jeffrey T. Barton	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 2-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Comments***

1. It is noted that the amendments made to the claims in Applicant's submission of 23 May 2008 do not conform to the requirements of 37 C.F.R. §1.121(c)(2), which states in part that "[the] text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters." Applicant has used double brackets to indicate deletion of more than five characters at numerous points in claim 1. Since Applicant's intent was clear, and in the interest of compact prosecution, the claim is examined as though the material shown within double brackets were struck-through in the amendment. Applicant should make any further claim amendments in accordance with 37 C.F.R. §1.121(c)(2).

### ***Response to Amendment***

2. The amendment filed on 23 May 2008 does not place the application in condition for allowance.

### ***Status of Objections and Rejections Pending Since the Office Action of 12 October 2007***

3. All previous objections and rejections are withdrawn due to Applicant's amendment.

***Election/Restrictions***

4. Newly submitted claims 4-12 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 1 does not require the "means to move the bottom structure and top structure" required in claims 4-12, while claims 4-12 do not require the metallic bottom structure or indentations required in claim 1.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 4-12 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

5. Claims 2 and 3 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the oral election of 10 October 2007, and confirmed in the response of 23 May 2008.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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7. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no teaching of the optical devices being positioned over the indentation "at a distance no greater than 20 millimeters" in the specification as originally filed. There is no mention of such 20 millimeter spacing, as an upper range limit or otherwise, anywhere in the original specification.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fraas et al.

Fraas et al disclose a photovoltaic device for concentrating sunlight onto multiple photovoltaic cells (Figures 1 and 3) comprising: a metallic bottom structure (46) with a multiplicity of indentations (47) that each contain a photovoltaic cell (42) (Column 6, lines 22-35); a rigid transparent top structure (Unitary structure of Fresnel lenses disclosed; Column 2, lines 52-60) containing multiple optical devices (i.e. each Fresnel lens in Figure 1 is a separate device), the top structure being aligned to the bottom layer such that the optical devices are positioned as claimed (Column 2, lines 46-61), wherein the optical devices concentrate incident sunlight towards the cells (Column 2, lines 46-61), and wherein the rigid top structure provides enough mechanical strength, rigidity, and stability to permit the photovoltaic device to be positioned. (Abstract; the devices are positioned as required in the claim, therefore the claimed strength, rigidity, and stability are present)

Fraas et al do not explicitly disclose the distance between the lenses and indentations.

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However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select any suitable distance between the indentations and lenses, such as a spacing of 20 mm or less, depending on the desired degree of concentration, size of the available cells, size and focal length of available lenses, etc. In the absence of evidence of criticality, such selection of suitable dimensions for the device is considered to be a matter of design choice, obvious to one having ordinary skill in the art. Note that in *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. There is no evidence that the claimed device performs significantly differently than that taught by the prior art.

12. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stark.  
(US 4,323,052)

Stark discloses a photovoltaic device for concentrating sunlight onto multiple photovoltaic cells (Figure 3) comprising: a metallic bottom structure (28) with a multiplicity of indentations (30) a plurality of which contain photovoltaic cells (59) (Column 13, lines 45-47; Column 14, lines 54-64); a rigid transparent top structure (e.g. 32, 12a, 12b) containing multiple optical devices (12a, 12b), the top layer being aligned to the bottom layer such that the optical devices are positioned as claimed (Column 14,

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lines 54-62), wherein the optical devices concentrate incident sunlight towards the cells (Figure 3; Column 14, lines 54-58), and wherein the rigid top structure provides enough mechanical strength, rigidity, and stability to permit the photovoltaic device to be positioned. (Abstract; the devices are positioned as required in the claim, therefore the claimed strength, rigidity, and stability are present)

Stark does not explicitly disclose a distance between the lenses and indentations of 20 mm or less.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select any suitable distance between the indentations and lenses, such as a spacing of 20 mm or less, depending on the desired degree of concentration, size of the available cells, size and focal length of available lenses, etc. In the absence of evidence of criticality, such selection of suitable dimensions for the device is considered to be a matter of design choice, obvious to one having ordinary skill in the art. Note that in *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. There is no evidence that the claimed device performs significantly differently than that taught by the prior art.



***Response to Arguments***

13. Applicant's arguments filed 23 May 2008 have been fully considered but they are not persuasive.

Regarding Fraas et al, Applicant cites Fraas's teaching of a flexible tape. The Examiner notes that this flexible tape is not relied upon in the rejection. The module of Figure 1 features a necessarily rigid top structure of lenses, which are considered to meet the claim limitations.

Regarding Stark, Applicant cites exemplary distances that are greater than those claimed, arguing that this constitutes teaching away from the claimed distance. The Examiner respectfully disagrees. At the outset, it is noted that there is no support for the limitation to "a distance no greater than 20 millimeters" in the specification as originally filed. Furthermore, the teaching of exemplary dimensions in no way constitutes teaching away from selection of different dimensions. The Examiner maintains that selection of suitable dimensions for the device is a matter of design choice, depending on, for example, desired degree of concentration or dimensions of available cells and lenses, and would have been obvious to one having ordinary skill in the art. Note that in *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device

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was not patentably distinct from the prior art device. There is no evidence that the claimed device performs significantly differently than that taught by the prior art.

### ***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Jeffrey T. Barton whose telephone number is (571)272-1307. The examiner can normally be reached on M-F 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nam X Nguyen/  
Supervisory Patent Examiner, Art Unit 1753

JTB  
11 December 2008